

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-093591

(43)Date of publication of application : 06.04.2001

(51)Int.Cl.

H01M 14/00

H01L 31/04

(21)Application number : 11-274000

(71)Applicant : TOSHIBA CORP

(22)Date of filing : 28.09.1999

(72)Inventor : SUMINO HIROYASU
MIKOSHIBA SATOSHI
YONEZU MAKI
HAYASE SHUJI

(54) PHOTOELECTRIC CONVERSION DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To resolve the drawback that the photoelectric conversion efficiency is degraded due to the movement of the charge carriers being adversely affected when employing fine particles of an n-type semiconductor oxide as the electrodes in a photoelectric conversion device such as a dye sensitized solar cell type.

SOLUTION: The photoelectric conversion device such as a dye sensitized solar cell comprises a transparent conductive layer 4 deposited on a transparent substrate 1, an electrode 2 formed of fine particles of an n-type semiconductor oxide deposited over the transparent conductive layer, a charge transfer layer 3 in junction with the electrode, and another substrate 6 with an opposite electrode 5 placed against the charge transfer layer 3. The device is characterized in the fact that the average particle size of the n-type

semiconductor oxide is greater in the region adjacent to the charge transfer layer than in the region adjacent to the transparent conductive layer.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]